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April 22, 2008

AGENDA ITEM 3a

TO: MEMBERS OF THE HEALTH BENEFITS COMMITTEE

- I. SUBJECT:** Health and Disease Management Initiative Update
- II. PROGRAM:** Health Benefits
- III. RECOMMENDATION:** Information Only
- IV. BACKGROUND:**

The Health Benefits Branch (HBB) is working on an initiative to design, develop and execute a best-in-class Health and Disease Management Program. This initiative will:

- assess current health plan capabilities
- analyze current chronic condition costs
- develop consistent disease management performance monitoring metrics
- recommend future directions.

At the March 2008 CalPERS Health Benefits Committee meeting, staff presented an analysis of chronic condition costs to set a baseline for CalPERS health and disease management programs. In addition, Mercer presented a suggested performance monitoring approach. This agenda item provides additional cost information requested at the March meeting.

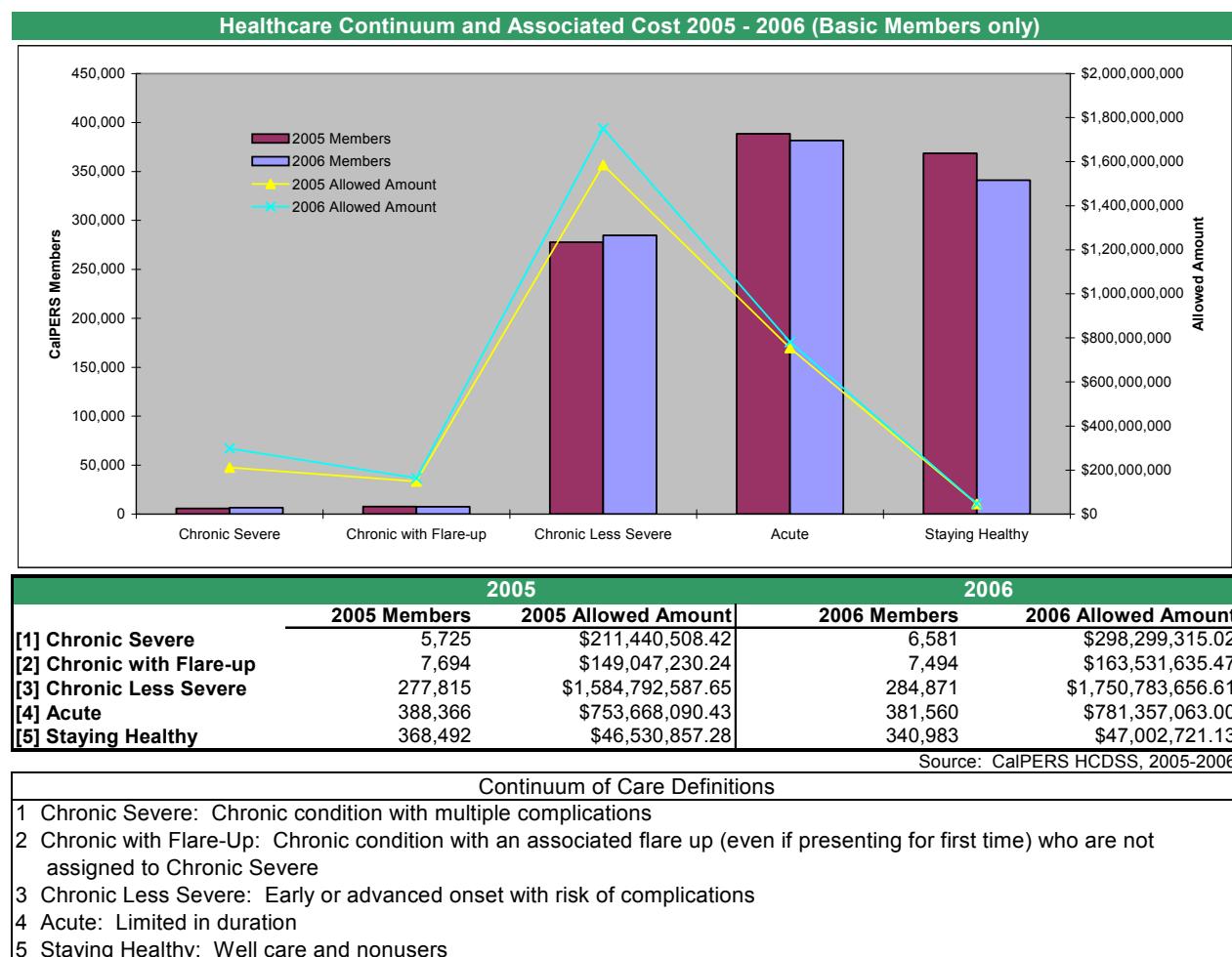
At the April Health Benefits Committee meeting, Mercer will present its final report on a CalPERS-specific best-in-class Health and Disease Management program. The report will include:

- Specific recommendations for the long-term direction of the Health and Disease Management program (including expansion to additional chronic conditions)
- An assessment of the feasibility of carving out components of the program
- A description of how this initiative could fit within the Single Health Benefits Administrator Initiative

V. ANALYSIS:

In March 2008, the CalPERS Health Benefits Committee asked staff to provide the financial costs associated with health care continuum categories and chronic condition disease severity stages and changes from 2005 to 2006.

The graph and table below present this information for health care continuum categories.



The data show that between 2005 and 2006:

- The highest health care costs are attributed to those in the *chronic less severe* category, where costs for these members increased by 10 percent. The third largest number of members is in this category and they grew by 3 percent.
- Those with *acute* conditions rank second in cost, and their costs increased 4 percent in 2006. This category has the largest number of members, though there was a slight 2 percent decrease between 2005 and 2006.

- Costs for those in the *chronic severe* category ranked third overall, and these members had the greatest cost increase from 2005 to 2006 – 41 percent. Though the fewest number of members are in this category, it grew by 15 percent.
- Ranking fourth in costs are *chronic with flare-up* members, and between 2005 and 2006 their costs increased 10 percent. The number of members in the category is fairly low and decreased by 3 percent in 2006.
- Members in the *staying healthy* category are least costly and their costs stayed relatively stable from 2005 to 2006, with a 1 percent increase. The third largest group of members is in this category, but its numbers decreased 7 percent over this period.

The following table presents information for chronic condition episode¹ disease severity stages.

Chronic Illness Severity Basic Plans - Year 2005 to 2006										
Chronic Disease Condition		Comparison 2005 to 2006								
		Stage 1			Stage 2			Stage 3		
		2005	2006	Diff	2005	2006	Diff	2005	2006	Diff
CAD	Number of Patients	12,885	12,569	-2.5%	2,230	2,207	-1.0%	1,538	1,391	-9.6%
	Cost of All Episodes	\$61,055,674	\$62,604,265	2.5%	\$40,882,208	\$46,040,697	12.6%	\$48,683,473	\$51,843,550	6.5%
	Cost Per Patient Per Episode	\$4,739	\$4,981	5.1%	\$18,333	\$20,861	13.8%	\$31,654	\$37,271	17.7%
Diabetes Mellitus	Number of Patients	36,755	40,398	9.9%	6,870	7,726	12.5%	779	813	4.4%
	Cost of All Episodes	\$61,162,759	\$68,196,738	11.5%	\$26,500,081	\$27,219,151	2.7%	\$12,808,718	\$13,308,066	3.9%
	Cost Per Patient Per Episode	\$1,664	\$1,688	1.4%	\$3,857	\$3,523	-8.7%	\$16,443	\$16,369	-0.4%
Hypertension	Number of Patients	76,838	81,716	6.3%	5,586	5,779	3.5%	1,054	1,219	15.7%
	Cost of All Episodes	\$58,671,869	\$60,543,318	3.2%	\$6,425,644	\$6,674,756	3.9%	\$9,985,639	\$9,085,238	-9.0%
	Cost Per Patient Per Episode	\$764	\$741	-3.0%	\$1,150	\$1,155	0.4%	\$9,474	\$7,453	-21.3%
Depression	Number of Patients	26,285	27,111	3.1%	19,535	22,050	12.9%	66	52	-21.2%
	Cost of All Episodes	\$17,654,582	\$18,125,411	2.7%	\$38,874,490	\$44,556,055	14.6%	\$1,855,472	\$1,205,854	-35.0%
	Cost Per Patient Per Episode	\$672	\$669	-0.5%	\$1,990	\$2,021	1.5%	\$28,113	\$23,189	-17.5%
Asthma	Number of Patients	31,733	31,177	-1.8%	8,456	8,102	-4.2%	2,052	1,856	-9.6%
	Cost of All Episodes	\$35,515,983	\$33,389,321	-6.0%	\$15,297,077	\$15,481,408	1.2%	\$5,507,366	\$4,682,675	-15.0%
	Cost Per Patient Per Episode	\$1,119	\$1,071	-4.3%	\$1,809	\$1,911	5.6%	\$2,684	\$2,523	-6.0%
COPD	Number of Patients	3,219	2,957	-8.1%	3,650	3,613	-1.0%	49	60	22.4%
	Cost of All Episodes	\$4,783,949	\$4,477,648	-6.4%	\$7,631,871	\$7,698,013	0.9%	\$3,072,651	\$2,328,801	-24.2%
	Cost Per Patient Per Episode	\$1,486	\$1,514	1.9%	\$2,091	\$2,131	1.9%	\$62,707	\$38,813	-38.1%
Congestive Heart Failure	Number of Patients	n/a			n/a			2,742	2,729	0.5%
	Cost of All Episodes							\$7,100,444	\$7,593,065	6.9%
	Cost Per Patient Per Episode							\$2,590	\$2,782	7.4%

Data Source: CalPERS HCDSS 2005-2006

¹ An episode cost combines all costs associated with a single condition (e.g. asthma), and includes inpatient and outpatient care, prescription drugs, and other related costs for that episode.

Stage	Description
0	History of, suspicion of, or exposure to disease
1	Early onset or cause is specified AND low risk of complications; slowed or reversed progression is possible
2	Advanced onset, multiple contributing causes AND significant risk of complications; slowed or reversed progression less likely
3	Generalized systemic involvement, difficult to determine cause AND multiple complications; slowed or reversed progression remote
4	Death

The data in this table show the following.

Change in number of patients

- The fastest growing chronic condition in terms of number of patients was diabetes, which increased 10 percent over all severity stages (from 44,404 in 2005 to 48,937 in 2006). Hypertension and depression increased 6 to 7 percent. Coronary artery disease (CAD), asthma, and chronic obstructive pulmonary disorder (COPD), saw slight *decreases* of 3 to 4 percent.
- Focusing on the disease severity stages, the most notable changes in number of patients were increases for hypertension in stage 3 (16%) and for diabetes and depression in stage 2 (both 13%). Diabetes also saw a 10 percent increase in stage 1².

Cost changes

- For *all severity stages combined*, the cost of all episodes increased for depression (9%), diabetes (8%), coronary artery disease (7%), congestive heart failure (CHF) (7%), and hypertension (2%) between 2005 and 2006. Asthma and chronic obstructive pulmonary disorder (COPD) had overall *decreases* of 5 to 6 percent.
- Looking at the cost of *all episodes by severity stage* from 2005 to 2006, the most notable change in stage 1 was a 12 percent increase for diabetes. In stage 2, CAD costs increased 13 percent and depression costs went up 15 percent. In stage 3, there were *decreases* of 9 percent for hypertension and 15 percent for asthma⁴.
- Focusing on *per-patient per episode (PPPE) costs by severity stage*, we see that stage 1 costs for all conditions changed less than 5 percent between 2005 and 2006. In stage 2, notable changes were a 14 percent increase in CAD per-patients costs, and a 9 percent decrease for diabetes. In stage 3, the most dramatic change was for COPD, where

² The large percentage changes seen in Stage 3 for depression and COPD are based on a very small number of members and are not statistically significant.

per-patient costs decreased 38 percent. Other large decreases in this stage occurred for hypertension (21%) and depression (18%).

Individual Chronic Condition Observations

- CAD: Relatively few members have coronary artery disease (CAD), but because its PPPE cost is very high, it is the costliest chronic condition in the CalPERS Basic population. In particular, there was an 18 percent increase in stage 3 PPPE costs in 2006.
- Diabetes: Diabetes is the second costliest chronic condition. Though PPPE costs for diabetes remained fairly stable from 2005 to 2006, with the growing number of patients in all severity stages, the cost for all episodes increased – especially in stage 1 (12%).
- Hypertension: Though hypertension has a low PPPE cost³, the largest number of members has this chronic condition, making it the third most costly overall. While PPPE costs decreased in 2006, the number of patients in each stage increased, most notably in Stage 3 (cost down 21% and patients up 16%).
- Depression: Depression ranks fourth in total episode costs across all disease stages. In lower disease stages, the number of patients and cost increased in 2006. This was most evident in stage 2, where patients increased by 13 percent and their costs by 15 percent. Both the cost and the number of patients in stage 3 *decreased* in 2006, though these numbers were very small to begin with.
- Asthma: Below depression in total overall costs is asthma. The number of patients with asthma decreased in every severity stage from 2005 to 2006. There was a small increase in costs for stage 2 patients, but costs decreased in the other stages. Changes were most dramatic in stage 3, where patients decreased 10 percent, total episode costs went down 15 percent, and PPPE costs dropped 6 percent.
- COPD: With a small number of patients and moderate PPPE costs in the lower stages, COPD ranks second to last in overall costs. For all severity stages combined, number of patients, total costs, and PPPE costs all decreased between 2005 and 2006. Though PPPE costs increase dramatically for stage 3 of this disease, very few patients are in this stage (49 in 2005 and 60 in 2006), and both total and PPPE costs in stage 3 decreased in 2006 (24% and 38% respectively).

³ While per-patient costs for hypertension as a stand-alone diagnosis are low, it is often found as a risk factor or co-morbid diagnosis in other chronic diseases.

- CHF: The number of patients with CHF is very small and the PPPE cost is moderate, making this the least costly among the conditions examined here. Though the number of patients from 2005 to 2006 remained flat, PPPE costs increased 7 percent. Congestive heart failure patients are always classified in stage 3.

VI. STRATEGIC PLAN:

This request relates to Goals X and XI of the strategic plan which state:

- “Develop and administer quality, sustainable health benefit programs that are responsive to and valued by enrollees and employers.”
- “Promote the ability of members and employers to make informed decisions resulting in improved lifestyle choices and health outcomes.”

VII. RESULTS/COSTS:

This is an information item only.

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